

Message

From: Healy, Stephen [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=D1638B0A30364C7D98EA7AF410A9CB2A-HEALY, STEPHEN]
Sent: 8/25/2015 5:25:23 PM
To: [Citizen Name / Ex. 6] [Personal Email / Ex. 6]
Subject: RE: More Questions on Diesel Particulate Filters and Diesel Engine Performance

Mr [Citizen Name / Ex. 6]

I have been in contact with Ford to see what they can do to remedy this situation. Can you please send me the VIN number and owner name and address so that the Ford staff can research the specifics for this truck.

Regarding both of your questions, they are both best answered by Ford. The OCR retrofit is something that EPA can allow, but I do not know if Ford offers such retrofits.

Thanks

Stephen Healy
Mechanical Engineer
EPA OTAQ Compliance Division
Diesel Engine Compliance Center
734--214-4121

From: [Citizen Name / Ex. 6] [mailto:[Personal Email / Ex. 6]]
Sent: Sunday, August 23, 2015 4:55 PM
To: Healy, Stephen
Subject: Re: More Questions on Diesel Particulate Filters and Diesel Engine Performance

Subject: Two More Questions

Thank you for your help!

1. Is there any possibility to retrofit OCR (Operator Controlled Regeneration) onto a 2012 model F-250? The truck seems to have been built without it. Would be EPA approval be required? If EPA approved, what other changes to the truck would be needed?
2. I infer that Ford requires the DPF to be 80% loaded or more before allowing Active Regeneration or OCR of the DPF on the vehicle. Why not allow Active Regeneration or OCR sooner (particularly when a lightly loaded truck operating in relatively cool temperatures and relatively short trips may not generate enough heat for effective Passive Regeneration)?

Best regards,

[Citizen Name / Ex. 6]

[Personal Phone / Ex. 6]

[Personal Email / Ex. 6]

On Thu, Aug 20, 2015 at 12:13 PM, Healy, Stephen <healy.stephen@epa.gov> wrote:

Mr. Citizen Name / Ex. 6

I forwarded your email to my contacts at Ford asking that they look into you issues and determine what can be done to improve the situation.

Please let me know if you have further questions.

Thank you.

Stephen Healy

Mechanical Engineer

EPA OTAQ Compliance Division

Diesel Engine Compliance Center

734--214-4121

From: Citizen Name / Ex. 6 **mailto:** Personal Email / Ex. 6

Sent: Tuesday, August 18, 2015 11:12 PM

To: Healy, Stephen

Subject: More Questions on Diesel Particulate Filters and Diesel Engine Performance

8/18/15

Stephen,

I am continuing to seek answers on diesel particulate emissions and the associated diesel engine performance problem. I would like to talk with you again about the issues.

Unfortunately there is no short recap on what's been going on.

Summarizing where we are:

First, Citizen Name / Ex. 6 is my son in law. He runs a tree moving business in Colorado, and he is busy as a one-armed paper hanger at this time. He owns 9 Ford trucks with 4 tree spades, a cherry picker, etc. I have already taken a lot of his time, and I have done a lot of reading on the internet and in his "Super Duty 2012 Owners Guide," the "Power Stroke Owner's Guide Diesel Supplement," and the "2012

Model Year Warranty Guide.” I have talked with a number of Ford Service reps. and you at the EPA in Ann Arbor. David has talked with the dealer, fleet sales people, and service people in the dealership and a number of Ford Customer Relationship people. I would like not to add another conversation where David has to explain what he has already explained many times. As I said, his business is keeping him very busy.

As you and I discussed when I sent my first email on July 30, the problem is Citizen Name / Ex. 6 smallest truck, which is a 2012, 10,000 # GVW, F-250, 6.7L V-8, diesel pick up delivered in October 2011; it now has roughly 40,000 miles. Occasionally he tows a ~25' inboard motor boat and trailer, and he has a snow plow, but both of these uses together count for less than 5% of the miles. Ford provided optional snow plow and towing packages on his truck. For over 95% of the miles, he drives the truck to customer meetings and job sites. He might carry a 50 # dog or a chain saw once in a while. Short trips. Very light duty.

The truck has already had a warranty claim for the DPF (Diesel Particulate Filter) a little more than 1 year ago. The problem – a stumbling engine -- is recurring – just like it did before the warranty work. The dealer and Ford have told him to relax and run the engine.

The manuals say “**Note:** Do not disregard the **DRIVE TO CLEAN EXHAUST FILTER** or **Drive to Clean Exhaust System** maintenance message for extended periods of time. Failure to perform active or operator commanded regeneration (OCR) (if equipped) when instructed may result in a clogged DPF. If your DPF fills beyond what can be safely regenerated, active regeneration and OCR will be disabled. This could cause irreversible damage to the DPF, requiring service and possible replacement that may not be covered by your warranty.”

The manuals also say that “passive” regeneration should occur if the truck is run over 30mph for 9-20 minutes. There is nothing about load, a higher speed, or more time although it seems clear the regeneration requires the exhaust system to operate at a high temperature.

Citizen Name / Ex. 6 did hook his boat to the truck two weeks ago, and he ran up into the mountains for 60 miles. Then he turned around and came home. The problem got better, but the truck engine did **not** perform at 100% during the following week. I infer this trip should have resulted in “Passive Cleaning” of the DPF. I further infer there would be no indication in the message center when “Passive Cleaning” is occurring, but the trip should have been sufficient to get the truck to 100% performance for at least a week following the trip.

I think that the truck diesel particulate filter control system is not working properly. From my reading when “Active Cleaning” is required, I infer that he is supposed to see "DRIVE TO CLEAN EXHAUST FILTER" in his message control center when his DPF needs regeneration and until he is moving faster than 30 mph. Then he should see "CLEANING EXHAUST FILTER" in his message center. He is then supposed to continue "driving safely" with a steady accelerator for 9-20 minutes at or above 30 mph until he sees "EXHAUST FILTER DRIVE COMPLETE." Conceivably, I think that it could take longer, but 9-20 minutes is the only estimate in print. This “Active Cleaning” process is not laid out clearly anywhere -- I am reading the “Super Duty Owner's Guide” and the “Power Stroke Owner's Guide Diesel Supplement” on several pages of each to put this together.

Citizen Name / Ex. 6 occasionally sees "CLEANING EXHAUST FILTER" in his message center for about 10 seconds. Then the display returns to normal. **He does not ever see the other messages.**

The dealer and Ford have both stated that "they do not have a solution for the problem." I think that they may be only looking at the regeneration process, and not at the controls that should be causing regeneration.

Further, there was an optional OCR (Operator Controlled Regeneration) process that could have been included on the truck if specified when ordered. The possibility was never discussed with Citizen Name / Ex. 6. According to the Owner's Manuals, Active Regeneration and OCR are only possible when the DPF is 80% full of particulates.

Ford Customer Relations has sent by "snail mail" a "National Vehicle Service Contract Application, Terms & Conditions." The Customer Relations Manager said that "she will give Citizen Name / Ex. 6 a 200,000 mile warranty." This warranty document as received **with no signature** would cover the truck for 84 months or 200,000 miles, whichever comes first.

Since Citizen Name / Ex. 6 mileage at present is 42,219, this seems like "sleeves from a vest." The truck was delivered on 10/14/11. It will be 4 years old next October 14, and the truck will have accumulated slightly more than 10,000 miles per year in service. There are no instructions as to what Citizen Name / Ex. 6 is supposed to do with the application. It has a return address on the envelope: RAV FAST, PO BOX 6045, DEARBORN, MI 48121. The warranty start date filled in on the application part of the document is 10/14/11, and the signature date filed in on the application is 6/30/15.

However, the warranty booklet that came with the truck includes a "Long Term Defects Warranty" that covers Citizen Name / Ex. 6 vehicle DPF (diesel particulate filter) for 84 months or 70,000 miles whichever comes first. So I think that the "gift" described in the prior paragraph has little, if any, value.

This leaves me with a number of questions:

1. Will the 6.7L diesel engine exhibit poor performance **before** the filter is 80% loaded?
2. If so, why not put a bigger filter on the truck or set up active regeneration and OCR to occur before engine performance problems occur? Can OCR be added to the truck now?
3. If that is not possible (Ford may have a cost or package issue), why not provide a second DPF that can be cleaned while off the truck and rotated with the first DPF whenever the engine exhibits poor performance?
4. Why does Citizen Name / Ex. 6 occasionally see "CLEANING EXHAUST FILTER" for about 10 seconds in the message center? (Nowhere in the Owner's Manual or Supplement is there any mention of this message occurring by itself without being preceded by the message "DRIVE TO CLEAN EXHAUST FILTER.")
5. Is there any possibility that the problem with the diesel engine performance is **not** due to the DPF or its cleaning control system?
6. Is it really true that Ford Diesel Engineering has not developed a solution to this problem that has been an issue almost forever? (Work on diesel particulates began long ago. The

present standard was implemented in 2007, but diesel particulates have been a recognized problem since the 1960's to my knowledge; I worked for Cummins before coming to Ford in 1968.)

7. Why is Ford not training its dealer sales people to recognize the parameters of customer usage that are necessary for successful diesel application?

8. Can you provide me with a contact in Ford engineering who I can talk with about this? I am looking for someone that has been or is presently involved in diesel emissions development since 2007 when the latest standards went into effect.

I very much appreciated your call after my last email. If you will call again, I will try not to take a lot of your time. I will be unavailable before 10:30 on Wednesday, but I should be available for the rest of Wednesday and all day on Thursday. Thanks for your help.

Best regards,

Citizen Name / Ex. 6

Personal Email / Ex. 6

Personal Phone / Ex. 6